

## APPENDIX F

### Timber Removal Specifications

<b>F.1 – Location and Area -</b>			
This Stewardship Project Area of:	225	acres more or less are located in:	Murray County, GA within Compartments 722 and 748, approximately 10 road miles southeast of Cisco, GA.

### F.2 -Volume Estimate and Utilization Standards.

Species	Product	Estimated Quantity	Unit of Measure	Minimum Specifications				
				Merchantable Tree		Piece Required to be Removed		
				Diameter Breast High (d.b.h.) (inches)	Number of Minimum Pieces per Tree	Length (feet)	Diameter Inside Bark at Small End (inches)	Net Merch. Factor <sup>1/</sup>
SOUTHERN YELLOW PINE	Sawtimber	80	CCF	9.0	1.5	8	6.3	30
WHITE PINE	Sawtimber	1120	CCF	10.0	1.5	8	6.3	30
VIRGINIA PINE	Sawtimber	1562	CCF	9.0	1.5	8	6.3	30
MISC. HARDWOODS	Sawtimber	177	CCF	12.0	1.5	8	8.0	30
LOW GRADE HARDWOOD	Sawtimber	166	CCF	12.0	1.5	8	8.0	30
SOFTWOOD – OTHER	Pulpwood	612	CCF	5.0	1.0	10	3.5	N/A
MISC. HARDWOODS	Pulpwood	459	CCF	5.0	1.0	10	3.5	N/A
<b>Total Quantity</b>		4176						

<sup>1/</sup> Enter Merchantability Factor (Merch. Factor) or Net Scale in % of Gross Scale, whichever is appropriate.

### F.3- High Stumps.

Species	Product	Maximum Stump Height (inches)
ALL	Sawtimber	12
ALL	Pulpwood	6

#### **F.4– Timber Rates. (Scaled)**

Cutting Unit Number	Approx. Acres					Rate of Payment \$/UOM	Required Deposit per unit of measure
		Species	Product	Quantity	Unit of Measure		
N/A							

#### **F.5 - Timber Rates. (Tree Measurement)**

Payment Unit Number	Approx. Acres					Total Payment	Required Deposit per Payment Unit
		Species	Product	Quantity	Unit of Measure		
01	19	Southern Yellow Pine	Sawtimber	0	CCF		0.00
		White Pine	Sawtimber	91	CCF		
		Virginia Pine	Sawtimber	89	CCF		
		Misc. Hardwoods	Sawtimber	2	CCF		
		Low Grade Hardwood	Sawtimber	0	CCF		
		Softwood - Other	Pulpwood	126	CCF		
		Misc. Hardwoods	Pulpwood	11	CCF		
		<b>Total</b>		<b>319</b>	<b>----</b>		
02	75	Southern Yellow Pine	Sawtimber	23	CCF		0.00
		White Pine	Sawtimber	61	CCF		
		Virginia Pine	Sawtimber	608	CCF		
		Misc. Hardwoods	Sawtimber	20	CCF		
		Low Grade Hardwood	Sawtimber	23	CCF		
		Softwood - Other	Pulpwood	112	CCF		
		Misc. Hardwoods	Pulpwood	69	CCF		
		<b>Total</b>		<b>916</b>	<b>----</b>		
03	12	Southern Yellow Pine	Sawtimber	21	CCF		0.00
		White Pine	Sawtimber	16	CCF		
		Virginia Pine	Sawtimber	26	CCF		
		Misc. Hardwoods	Sawtimber	1	CCF		
		Low Grade Hardwood	Sawtimber	0	CCF		
		Softwood - Other	Pulpwood	85	CCF		
		Misc. Hardwoods	Pulpwood	6	CCF		
		<b>Total</b>		<b>155</b>	<b>----</b>		
04	14	Southern Yellow Pine	Sawtimber	3	CCF		0.00
		White Pine	Sawtimber	158	CCF		
		Virginia Pine	Sawtimber	128	CCF		
		Misc. Hardwoods	Sawtimber	25	CCF		0.00
		Low Grade Hardwood	Sawtimber	20	CCF		
		Softwood - Other	Pulpwood	40	CCF		
		Misc. Hardwoods	Pulpwood	54	CCF		
		<b>Total</b>		<b>428</b>	<b>----</b>		
05	3	Southern Yellow Pine	Sawtimber	1	CCF		0.00
		White Pine	Sawtimber	25	CCF		
		Virginia Pine	Sawtimber	35	CCF		

Payment Unit Number	Approx. Acres					Total Payment	Required Deposit per Payment Unit
		Species	Product	Quantity	Unit of Measure		
		Misc. Hardwoods	Sawtimber	3	CCF		
		Low Grade Hardwood	Sawtimber	2	CCF		
		Softwood - Other	Pulpwood	10	CCF		
		Misc. Hardwoods	Pulpwood	12	CCF		
		<b>Total</b>		<b>88</b>	<b>----</b>		
06	30	Southern Yellow Pine	Sawtimber	3	CCF		0.00
		White Pine	Sawtimber	74	CCF		
		Virginia Pine	Sawtimber	107	CCF		
		Misc. Hardwoods	Sawtimber	13	CCF		
		Low Grade Hardwood	Sawtimber	15	CCF		
		Softwood - Other	Pulpwood	50	CCF		
		Misc. Hardwoods	Pulpwood	48	CCF		
		<b>Total</b>		<b>310</b>	<b>----</b>		
07	8	Southern Yellow Pine	Sawtimber	3	CCF		0.00
		White Pine	Sawtimber	101	CCF		
		Virginia Pine	Sawtimber	34	CCF		
		Misc. Hardwoods	Sawtimber	19	CCF		
		Low Grade Hardwood	Sawtimber	8	CCF		
		Softwood - Other	Pulpwood	16	CCF		
		Misc. Hardwoods	Pulpwood	27	CCF		
		<b>Total</b>		<b>208</b>	<b>----</b>		
08	32	Southern Yellow Pine	Sawtimber	16	CCF		0.00
		White Pine	Sawtimber	349	CCF		
		Virginia Pine	Sawtimber	163	CCF		
		Misc. Hardwoods	Sawtimber	34	CCF		
		Low Grade Hardwood	Sawtimber	49	CCF		
		Softwood - Other	Pulpwood	71	CCF		
		Misc. Hardwoods	Pulpwood	104	CCF		
		<b>Total</b>		<b>786</b>	<b>----</b>		
09	26	Southern Yellow Pine	Sawtimber	5	CCF		0.00
		White Pine	Sawtimber	237	CCF		
		Virginia Pine	Sawtimber	335	CCF		
		Misc. Hardwoods	Sawtimber	29	CCF		
		Low Grade Hardwood	Sawtimber	37	CCF		
		Softwood - Other	Pulpwood	86	CCF		
		Misc. Hardwoods	Pulpwood	98	CCF		
		<b>Total</b>		<b>827</b>	<b>----</b>		
10	6	Southern Yellow Pine	Sawtimber	5	CCF		0.00
		White Pine	Sawtimber	8	CCF		
		Virginia Pine	Sawtimber	37	CCF		
		Misc. Hardwoods	Sawtimber	31	CCF		0.00
		Low Grade Hardwood	Sawtimber	12	CCF		
		Softwood - Other	Pulpwood	16	CCF		
		Misc. Hardwoods	Pulpwood	30	CCF		
		<b>Total</b>		<b>139</b>	<b>----</b>		

**F.6 - Timber Designations.** Timber designated for cutting shall be confined to the Stewardship Project Area. No undesignated timber shall be cut without prior notification to and approval of the U.S. Forest Service. Prescriptions/timber designations are included later in this subsection.

	Number	Acres
Clearcutting Units		
Specified Road Clearing		
Overstory Removal Units		
Understory Removal Units		
Individual Trees		225
Incompletely Marked Timber		

**F.7 - Cutting Unit Boundary Designation.** The boundaries of cutting units are designated as shown in the following table. The trees used for boundary designation are not to be cut.

Cutting Unit	Paint Color	Designation
ALL	Orange	Boundary line trees are marked at DBH with three (3) horizontal slash marks and a spot at ground level with the DBH level marks facing into the interior of the Payment Unit.  -Yellow boundary posters with sale name and Payment Unit are stapled to boundary trees and face outward at locations where the Payment Unit boundary intersects or coincides with a road going into unit or at other logical locations.

**F.8 Tree Designation/Prescriptions.**

**Leave Tree Mark (LTM).** In the following Payment Units Individual trees to be left uncut are marked. Unmarked trees meeting utilization Standards in F.2 shall be cut. Areas of leave tree marking are shown on the Timber Removal Area Map, Appendix C with the symbol LTM.

Payment Unit	Paint Color	Designation/Prescription
04, 05, 07, 08, 09	Orange	Leave Tree Marked

**Cut Tree Mark (CTM).** In the following Payment Units, Individual trees to be cut are marked. Areas of cut tree marking are shown on the Timber Removal Area Map, Appendix C with the symbol CTM.

Payment Unit	Paint Color	Designation/Prescription
01, 02, 03, 06	Blue	Cut Tree Marked
10	Yellow	Cut Tree Marked

**F.9- Control of Operations.**

**Authorized Clearings.** The location and clearing limits of all temporary roads, landings, skid trails, and other authorized clearings shall be agreed to in writing prior to their construction. Clearing limits for landing and temporary roads and centerlines for skid trails shall be flagged on the ground by the Partner or its representative, unless otherwise agreed in writing. Any material meeting minimum specifications listed in F.2 which has not previously been designated for removal shall be designated for removal by the Forest Service. Quantity shall be determined by standard Forest Service procedures and paid for at the following unit of measure rates.

Species	Product	Unit of Measure	Rate per Unit of Measure
Southern Yellow Pine	Sawtimber	CCF	
White Pine	Sawtimber	CCF	

Virginia Pine	Sawtimber	CCF	
Misc. Hardwoods	Sawtimber	CCF	
Low Grade Hardwood	Sawtimber	CCF	
Softwood- Other	pulpwood	CCF	
Misc. Hardwoods	pulpwood	CCF	

### **Damaged Timber.**

#### Timber Cut Through Mistake and Undesignated Timber Damaged Without Negligence

Undesignated timber meeting Utilization Standards in Appendix F.2 and cut through mistake by Partner shall be removed and paid for at current agreement rates as listed in Appendix F.9 Authorized Clearings (above).

Undesignated timber meeting Utilization Standards in Appendix F.2 damaged without negligence by Partner and designated by Forest Service, shall be cut, removed, and paid for at current agreement rates listed in Appendix F.9 Authorized Clearings.

#### Undesignated Timber Unnecessarily Damaged or Negligently or Willfully Cut

Undesignated timber meeting Utilization Standards in Appendix F.2 and unnecessarily damaged or negligently or willfully cut by Partner, if included by Contracting Officer, shall be cut, removed and paid for at current agreement rates listed in Appendix F.9 Authorized Clearings in addition to liquidated damages. If such timber is of a species or size not listed in Appendix F.2 or is of a quality different from designated timber, Contracting Officer shall establish payment rates in accord with standard Forest Service methods.

#### Liquidated Damages

Unnecessary damage to or negligent or willful cutting of undesignated timber, as described above, on portions of Timber Removal Area cut over under this agreement is likely to cause substantial silvicultural or other damage to the National Forest. It will be difficult, if not impossible, to determine the amount of such damage. Therefore, Partner shall pay as fixed, agreed, and liquidated damages an amount equivalent to the amount payable at current agreement rates, as listed in Appendix F.9 Authorized Clearings. If designated by Contracting Officer, Purchaser shall remove such damaged or cut timber and pay for it at the current agreement rates listed in Appendix F.9 Authorized Clearings.

**Representatives.** Unless otherwise agreed, Partner shall designate in writing, a representative who is authorized to receive notices in regard to performance under this agreement and take related action.

Prior to initial operations and after shutdowns of 10 days or more, Partner's representative shall notify Forest Service 2 days, excluding weekends and Federal Holidays before an operations begin on Timber Removal Area.

The Contracting Officer shall designate and notify Partner in writing a Forest Service representative. The Forest Service representative shall: receive notice in regard to performance under the agreement, take action in relation to this agreement, and be readily available to the area

of construction and logging operations. Contracting Officer or Forest Service representative shall designate other on-the-ground representatives in writing along with their specific agreement responsibilities and authority. Representatives with authority delegated in writing are the only Forest Service personnel authorized to provide notice or take related actions under the agreement. Such delegations shall be made within 30 days of receipt of Partner's Plan of Operations.

**Notices.** Notices by either party as to action taken or to be taken by the other respecting this agreement shall be made in writing to the other party's designated representative.

**Partner's Operations.** Under this agreement, "Partner's Operations" shall include activities of or use of equipment of Partner, Partner's employees, agents, contractors, subcontractors, or their employees or agents, acting in the course of their employment in operations hereunder on National Forest lands.

The Partner must submit a Plan of Operations for approval by Forest Service prior to beginning operations in the timber removal project area. This plan must show how the Partner plans to complete the timber removal and associated work by the termination date of the agreement,

In addition, the Partner shall submit an Annual Operating Schedule before commencing operations. This schedule include anticipated major activities and needs for harvest.

Partner's Operations shall be conducted in a workman-like and orderly manner. The timing of required Forest Service designation of work on the ground and the performance of other Forest Service work shall not be such as to cause unnecessary delay to Partner.

"Release for Cutting" is written authorization for Partner to begin cutting in Payment Unit. Upon Partner's request for release of a Payment Unit, Forest Service shall either:

Given tentative approval and bill Partner for amount of Payment Unit and/or deposits, or

Reject the request, stating reasons for rejection.

When payment or payment guarantee has been confirmed, Forest Service shall issue Release for Cutting within 10 days. Partner shall not cut timber in any Payment Unit until it is Released for Cutting.

Unless otherwise agreed in writing, no more than **3 Payment Units** may be operated at one time. Upon completion of all agreement requirements in a Payment Unit, an additional Payment Unit may be Released for Cutting, if by such release, the maximum number of Payment Units specified above, which may be operated at one time, is not exceeded.

**Acceptance of Work.** Upon Partner's written request and assurance that work has been completed, Forest Service shall perform an inspection within 5 days, excluding weekends and federal holidays, so as not to delay unnecessarily the progress of Partner's operations. Such request may be for acceptance of:

Any reasonable portion of Specified Road listed in the Schedule of Items (Appendix E.1.2);

Specific requirements on a Payment Unit (such as logging, slash disposal, erosion control, or snag felling); or

All contract requirements on a Payment Unit.

Forest Service may perform such inspections without request from Partner. Within 2 days of inspection, excluding weekends and Federal holidays, Forest Service shall furnish Purchaser with written notice either of acceptance or of work remaining to be done.

In the event that Forest Service is unable to make such inspection within 5 days of Partner's request, Partner shall be notified in writing of necessity for postponement and time when inspection can be made. The same final approval procedure shall be used at the end of the Partner's construction period on any completed portion of road.

**Protection of Special Areas.** To comply with Indiana Bat protection standards, logging shall be permitted in the following areas only during the following specified times:

Payment Unit 04, from September 1 through March 31. No operations shall occur in Payment Unit 04 from April 1 through August 31.

The location of this area is shown on the Timber Removal Area Map with the symbol SA (Special Area). Payment Unit 04 boundary is marked on the ground in orange paint (3 stripes and stump mark) as described in F.7.

**Site Specific Special Protection Measures.** Special protection measures needed to protect known areas identified on Stewardship Agreement Timber Removal Area Map or on the ground include:

*Wildlife and Botanical Protection Measures:* A population of a rare plant is located within the boundary of Payment Unit 09. The site has been designated on the ground with white paint (three slashes and stump mark), and its location shown on the Timber Removal Area Map with the symbol PES. Partner's operations should avoid the area in Payment Unit 09 contained within a white painted boundary. Trees shall be felled away from the site to further protect the site from damage. Felled trees or other debris entering the boundary of this site shall not be removed unless otherwise agreed to by Forest Service. In such cases, Partner shall immediately notify Forest Service to determine whether material entering the site can be safely removed without damaging the protected plants.

**Streamcourse Protection.** The following are required in addition to those requirements listed in



## Appendix G:

Fords may be permitted with written authorization in locations containing rock or rock-fragment bottoms or where streams can be protected with corduroy or gravel.

All vehicles are prohibited within a Pink Marked boundary along either side of Protected Streamcourses, as shown on Timber Removal Area Map. Vehicles will be allowed to cross Streamcourses only at locations designated by the Forest Service or as essential to construction or removal of culverts or bridges.

**Revegetation.** Where soil has been disturbed by Partner's operations and vegetation is needed to minimize erosion, Partner shall take appropriate measures according to the following specifications or other agreed stabilization measures:

Temporary road cuts, fill slopes, and shoulders shall be seeded and fertilized within 15 days of construction during the seeding seasons(s).

Temporary road surfaces, landings, and skid trails shall be seeded when not to be used for a period exceeding 60 days during the seeding season(s).

Temporary road cuts, fill slopes, and other soil disturbance within 25 feet slope distance of a streamcourse shall be seeded and mulched within 3 days of the disturbance.

Exposed soil on temporary roads, skid trails, and landings no longer needed for the Partner's operations shall be seeded and fertilized within 30 days of discontinued use during the seeding season(s). Soil tilling to cover seed may be required under dry sit conditions.

Bare areas or roads with soil compaction will require harrowing, disking, or ripping. Fertilizer shall be applied and mixed thoroughly with the soil prior to seeding. Due to compaction, it may be necessary to till the soil to a depth of 6 inches or more.

Mulch shall be applied at a rate of 3000 lbs per acre where designated by Forest Service. Hay, straw, pine straw or shredded bark or other mulch acceptable to the Forest Service may be used as a mulching material.

Seasons, types, and amounts of seed and fertilizer to be applied are shown in the tables below:

**Revegetation Plan and Specifications, Seeding Season(s) Table**

<b>Seeding Season</b>	<b><u>2/</u> From Date</b>	<b><u>2/</u> To Date</b>
Early Spring	March 1st	April 15
Spring	April 15th	June 15th
Fall	August 15th	October 15th

**Revegetation Plan and Specifications, Fertilizer and Seed Table**

<b>Early Spring Season</b>
Kobe Lespedeza
Brown Top Millet
10-10-10 or equivalent

<b>Lbs/Acre</b>
30
15
500

<b>Spring Season</b>
Brown Top Millet
10-10-10 or equivalent

<b>Lbs/Acre</b>
30
500

<b>Fall Season</b>
Ladino Clover
Red Clover
Annual Rye
Wheat
10-10-10 or equivalent

<b>Lbs/Acre</b>
5
10
30
30
500

**Temporary Roads.** Unless otherwise agreed in writing, Temporary Road construction shall not be scheduled to occur outside the seeding season(s) listed in F.9 – Control of Operations, Revegetation.

The location and clearing widths of all Temporary Roads shall be agreed to and all timber within the clearing limits shall be paid for at rates specified in F.9 – Control of Operations, Authorized Clearings before construction is started. Temporary roads shall follow the general contour insofar as practical with the maximum grades not to exceed 20 percent for lengths up to 200 feet. Construction shall include frequent broad-based dips or breaks in grade as necessary to remove runoff from the road. Clearing widths shall not exceed that needed for safe and efficient operations, and the travel way shall not exceed 14 -18 feet except at turnouts and landings. Crossings shall be located perpendicular to any stream or drainage.

Concurrent with Temporaary Road construction, the Partner shall install straw or hay bales, silt fences or brush/slash barriers at the base of the fill along Temporary Roads adjacent to and within 50 feet of streamcourses and/or at other sensitive areas shown on the Stewardship Agreement Timber Removal Area Map.

At Streamcourse crossings, cut and fill slopes and other disturbed areas within 25 feet slope distance of the Streamcourse shall be protected by seeding and mulching within 3 days.

As necessary to attain stabilization of roadbed and cut and fill slopes of Temporary Roads, the Partner shall employ such measures as outslowing, revegetation, mulching, drainage dips, water spreading ditches and silt barriers.

Unless otherwise agreed, cut banks and fill slopes shall be sufficiently sloped to facilitate revegetation.

The Partner shall maintain all erosion control structures such as silt barriers, water-spreading ditches and broad-based dips in a functional condition during Partner's operations. Partner shall stabilize and close to vehicular traffic all Temporary roads prior to periods of inactivity.

When temporary Road has served Partner's purpose, the Partner will give notice to Forest Service and shall eliminate ditches, out-slope roadbed, remove ruts, remove outside berms by pulling the material back onto the road surface, effectively block the road to normal vehicular traffic, and build cross ditches and water bars as staked or otherwise marked on the ground by the Forest Service, unless otherwise agreed in writing.

The Partner shall place and maintain the following depth of gravel or crushed stone on all Temporary roads as the following locations:

Location	Distance (feet)	Percent Grade	No. Inches of Gravel or Crushed Stone
Approaches to surfaced roads for a distance back from the surfaced road.	100	N/A	3" #4 stone
Streamcourse crossings for a distance on either side of the Streamcourse.	50	N/A	3" #4 stone
Steep grades of short distances	N/A	>10%	3" #4 stone
Wet or erosive prone soils	N/A	N/A	3" #4 stone
Dips, moist sites, erosive prone soils, and fills over culverts	25	N/A	3" #4 stone

**Slash Treatment.** Slash is defined as all vegetative debris resulting from the Partner's operations, including limbs, tops, cull logs, bark, wood chunks, pushed-out stumps, damaged brush, and damaged residual trees. Tops from felled trees and all trees to be removed from roads, landings, or other construction clearings shall be completely felled and not left leaning or hanging in other areas.

The Partner shall conduct operations so that slash does not enter non-National Forest System lands, as shown on Timber Removal Area Map. In event slash is deposited on other ownership, the Partner shall immediately remove such slash.

Along roads available for public use the partner shall immediately remove slash from travelled surfaces, shoulders, and drainage facilities. Other slash along roads available for public use and all slash along roads not available for public use shall be removed from the clearing limits within four days after adjacent skidding or yarding to each landing is complete. In areas where skidding or yarding is delayed or interrupted, slash shall be removed within 10 days after being created.

Trails open to public use shall be kept free of slash. Slash within the clearing limits of powerlines, telephone lines, pipelines, and similar clearings shall be removed within 10 days after adjacent skidding or yarding to each landing is substantially complete.

Slash removed from roads and other clearings shall be scattered outside of clearing limits, or otherwise disposed of as agreed. The time requirements for completion of slash removal may be changed by written agreement, except where immediate removal is required.

In Payment Units 01, 02, 03, 06, and 10 at or adjacent to log landings, delimbing areas, and

similar areas of slash accumulation, concentrations of slash greater than two feet in height and 20 feet in length shall be lopped and scattered evenly over skid trails concurrent with operations.

Slash treatments described below are required at locations shown on Stewardship Agreement Timber Removal Area Map by the following symbols:

Map Symbol	Title	Treatment
ST	Seed Tree Areas	In seed tree or shelterwood areas, slash shall be removed within 10 feet of the boles of all leave trees designated with orange bands.
SD	Slash Disposal	Within Payment Units 04, 05, 07, 08, 09, all slash which accumulates at log landings or at other areas of slash accumulation shall be removed from such areas and scattered evenly throughout unit.
SSSSS	Slash Treatment Zone	Areas along FS Road 17 in Payment Units 01 and 02, Partner shall lop and scatter all slash to lie within 2 feet of the ground. The boundary of such treatment shall be 100 feet from the edge of the clearing limit of FS Road 17.

**F.10 - Roads.** **Error! Reference source not found.** is/are authorized to construct and maintain roads, bridges, and other transportation facilities, as needed for conducting treatments on National Forest and other lands where U.S. Forest Service has such authority. As used in this Supplemental Project Agreement, “construct” includes “reconstruct.”

<b><u>F.10-a– Specified Roads.</u></b>							
Name and Date of Governing Road Specifications:							
Project		Design Class	Approx. Length (mi./km.)	Sheet Numbers and Approval Date	Performance Responsibility		
					Survey	Design	Const. Staking
See Appendix E.1							

**F.10-b - Road Maintenance Requirements.** **Error! Reference source not found.** shall maintain roads in accordance with the following Road Maintenance Requirements

SEE APPENDIX E.2

**F.10-c - Use of Roads By the Partner.** **Error! Reference source not found.** Partner’s use of existing roads identified on Stewardship Project Area Map by the following codes is prohibited or subject to restrictive limitations, unless agreed to otherwise:

Code	Use Limitations
X	Hauling prohibited

Code	Use Limitations
R	Hauling restricted
U	Unsuitable for hauling prior to completion of agreed reconstruction
P	Use prohibited
A	Public use restriction
W	Regulation waiver

Roads coded A will be signed by the U.S. Forest Service to inform the public of use restrictions. **Error! Reference source not found.** Partner's use of roads coded R, A, or W shall be in accordance with the following restrictions:

#### Restricted Road List

Road Number	Road Name	Termini		Map	Description of Restrictions
		From	To	Legend	
N/A					

#### **F.11– Scaling Instructions and Specifications.**

Name and Date of Governing Instructions:	FSH 2409.11a, National Forest Cubic Log Scaling Handbook, as amended and supplemented. Governing instructions for products contained in E.2.
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#### **F.12– Scaling Services.**

Species	Product	Unit of Measure	Site and Geographic Location	Method	Standard Estimated Cost per Unit \$
N/A					

**F.13 - Advance Deposits.** **Error! Reference source not found.** agree(s) to make advanced deposits in advance of cutting. These deposits may be in the form of cash, acceptable payment bond, earned stewardship credit or any combination thereof. Advanced deposits will be in such amounts as to maintain an unobligated balance sufficient enough to cover the value of timber to be cut. U.S. Forest Service and **Error! Reference source not found.** will agree on a systematic approach to provide sufficient advanced deposits.

If the credit balance in the IRSA is less than the amount due for timber, the U.S. Forest Service

will suspend all or any part of **Error! Reference source not found.**'s operations until payment or acceptable payment guarantee is received.

#### **F.14- Title Passage.**

Scaled: All right, title, and interest in and to any included timber shall remain with the U.S. Forest Service until it has been cut, scaled, and removed from the Stewardship Project Area or other authorized cutting area, and paid for, at which time title shall then vest with **Error!**

**Reference source not found..** Timber cut under cash deposit or acceptable payment guarantee shall be considered to have been paid for. Title to any included timber that has been cut, scaled and paid for, but not removed from the Stewardship Project Area or other authorized cutting area by the **Error! Reference source not found.** on or prior to the termination date, shall remain with the U.S. Forest Service.

Tree Measurement. All right, title, and interest in and to any included timber shall remain with the U.S. Forest Service until it has been measured, paid for, and removed from the Stewardship Project Area or other authorized cutting area, at which time title shall then vest with **Error! Reference source not found..** Timber cut under cash deposit or acceptable payment guarantee shall be considered to have been paid for. Title to any included timber that has been measured and paid for, but not removed from the Stewardship Project Area or other authorized cutting area by **Error! Reference source not found.** on or prior to the termination date, shall remain with the U.S. Forest Service.

#### **F.15- Liability.**

Liability for Loss. If Included Timber is destroyed or damaged by an unexpected event that significantly changes the nature of Included Timber, such as fire, wind, flood, insects, disease, or similar cause, the party holding title shall bear the timber value loss resulting from such destruction or damage; except that such losses after removal of timber from the Stewardship Project Area, but before scaling, shall be borne by **Error! Reference source not found.** at current SPA Rates and Required Deposits. Deterioration or loss of value of salvage timber is not an unexpected event.

In the event Included Timber to which U.S. Forest Service holds title is destroyed, **Error! Reference source not found.** will not be obligated to remove and pay for such timber. In the event Included Timber to which U.S. Forest Service holds title is damaged, the U.S. Forest Service shall make an appraisal to determine for each species the difference between the appraised unit value of Included Timber immediately prior to the value loss and the appraised unit value of timber after the loss. Current SPA Rates in effect at the time of the value loss shall be adjusted by differences to become the redetermined rates. There shall be no obligation for the U.S. Forest Service to supply, or for **Error! Reference source not found.** to accept and pay for, other timber in lieu of that destroyed or damaged. This Subsection shall not be construed to relieve either party of liability for negligence.

Limited Liability for Operations Fires.

Maximum Amount of Partner's Obligation per Operation's Fire. Entry should be determined as follows and rounded up to the nearest \$100. The minimum amount will be \$1,000.00. If State statute or law defines limited liability, use that determination (e.g. Oregon), otherwise calculate the amount using the following formula:

$[(1) \times (2) + (3) \times (4)] \times (5) = \text{Maximum Amount of Cooperator's Obligation per Operations Fire. Round up to the next \$100.}$

- (1) Equals the number of workers normally required to operate the size of proposed project.

\_\_\_\_\_ Workers

- (2) Equals the daily (12 hour) wage rate for semi-skilled (AD-1) firefighter.

\$\_\_\_\_\_/Hr. x 12 hours = \$\_\_\_\_\_

- (3) Equals the number of pieces of equipment normally required to operate the size of proposed project that can effectively cut and clear fire lines.

\_\_\_\_\_ Pieces of equipment

- (4) Average daily rate for each piece of equipment, including cost of operator, from current local engineering cost guide.

\$\_\_\_\_\_/Hr. x 12 hours = \$\_\_\_\_\_/12hr.

- (5) Equals the number of days normally required to control and mop up such fires to a point where control lines can reasonably be expected to hold under foreseeable conditions. Minimum is one day and maximum is 10.

\_\_\_\_\_ days

**Partner's Obligation per Operations Fire,**

**Maximum Amount:** \$ 1000.00

## **APPENDIX G**

### **GUIDELINES FOR OPERATIONS**

The following Guidelines for Operations apply to activities under this SPA, when relevant to the project. These guidelines are intended to clarify the expectations of the parties related to these specific areas of operations.

1. **Stewardship Project Area Map (Map).** This is the boundary of the Stewardship Project Area as shown in Appendix B and designated on the ground by the U.S. Forest Service to meet the anticipated needs of the parties. The following are identified on the Map:
  - a) Identified patented claims.
  - b) Boundaries of all harvest and stewardship treatment units.
  - c) Diameter limits for overstory and understory removal units.
  - d) Areas where leave trees are marked to be left uncut.
  - e) Specified roads.
  - f) Sources of base course, surface rock, and rock riprap listed in the Schedule of Items;
  - g) Roads where log hauling or use is prohibited or restricted.
  - h) Roads and trails to be kept open.
  - i) Improvements to be protected.
  - j) Locations of known wildlife or plant habitat and cave resources to be protected.
  - k) Locations of areas known to be infested with specific invasive species of concern.
  - l) Maximum stump heights when more than one height is listed by areas.
  - m) Skidding or yarding methods.
  - n) Streamcourses to be protected.
  - o) Locations of meadows requiring protection.
  - p) Locations of wetlands requiring protection.
  - q) Locations of temporary roads to be kept open.
  - r) Payment units, if required
2. **Use of Roads by the Partner. Error! Reference source not found.** is/are authorized to use existing National Forest system roads and specified roads. The Parties will determine that such use will not cause damage to the roads or National Forest resources.
3. **Plan of Operations for Roads.** Annually, prior to start of operations, **Error! Reference source not found.** will prepare a supplement to the Technical Proposal that shall include a schedule of proposed maintenance and construction progress and a description of planned measures to be taken to provide erosion control for work in progress, including special measures to be taken on any segments of construction not substantially completed prior to periods of seasonal precipitation or runoff. **Error! Reference source not found.** shall submit a revised schedule when they propose a significant deviation from the progress schedule. Prior to beginning construction on any portion of specified roads identified as sensitive on plans, the parties shall agree on the proposed method of construction and maintenance.
4. **Protection of Residual Trees. Error! Reference source not found.**'s operations shall not



unnecessarily damage young growth or other trees to be reserved.

5. **Safety. Error! Reference source not found.**'s operations shall facilitate the U.S. Forest Service's safe and practical inspection of **Error! Reference source not found.**'s operations and conduct of other official duties on the Stewardship Project Area. **Error! Reference source not found.** has/have all responsibility for compliance with safety requirements for **Error! Reference source not found.**'s employees.

When operations are in progress adjacent or on U.S. Forest Service controlled roads and trails open to public travel, **Error! Reference source not found.** shall furnish, install, and maintain all temporary traffic controls that provide the user with adequate warning of hazardous or potentially hazardous conditions associated with operations occurring in the area. The parties shall agree to a specific traffic control plan prior to commencement of work. Devices shall be appropriate to current conditions and shall be covered or removed when not needed.

During periods of general recreation activity within Stewardship Project Area or vicinity, the U.S. Forest Service may restrict road construction, timber cutting, yarding, and other harvesting operations to days other than Saturdays, Sundays, and holidays.

## **LOGGING AND MAINTENANCE OPERATIONS SIGNING STANDARDS**

All signs must be manufactured & installed as specified in the FHWA "**Manual on Uniform Traffic Control Devices**" (MUTCD) & FS publication "**Standards for U.S. Forest Service Signs & Posters**"( EM 7100-15).

### **SIGN STANDARDS**

**SHAPE & COLOR:** Generally, signs for logging and maintenance operations are either diamond-shaped or rectangular. All signs are *reflective orange background with black legend and border* unless shown otherwise. Handpainted, homemade signs are not legal. Fluorescent paint is not reflectorized.

**SUBSTRATE:** Sign substrate material may be High Density Overlay (HDO) Plywood, Aluminum, Fiberglass Reinforced Plastic, Corrugated Plastic or Roll-up Fabrics.

**SIGN SIZE:** Sign size is a factor of speed and MUTCD & FS standards. Where conditions of speed, volume, or special hazard require greater visibility or emphasis, larger signs should be used. Minimum sizes for the most common signs can be found in Figure 4. Refer to the EM-7100-15 for additional sign sizes.

**LEGEND:** All lettering shall be Series "C" alphabet, conforming to Standard Alphabets for Highway Signs. Letter size is also a function of speed - use letter size and word messages as specified in MUTCD and EM-7100-15.

### **SIGN PLACEMENT**

Signs are to be installed in locations as agreed to in the traffic control plan. All signs are to be removed, covered, or folded when operations are not in progress or the sign message is not applicable. Signs should generally be located on the right-hand side of the roadway. When special emphasis is needed, signs may be placed on both the left and right sides of the road. Sign message shall be clearly visible to road users, mounted on posts or portable sign stands.

#### **LATERAL CLEARANCE**

From the edge of the road - 2 foot minimum, where slope limits to less than 6 feet. 6-12 foot preferred.

#### **HEIGHT**

Minimum of 7 feet, measured from the bottom of the sign to the near edge of the travelway. The height to the bottom of a supplemental sign mounted below the primary sign will be 6 feet.

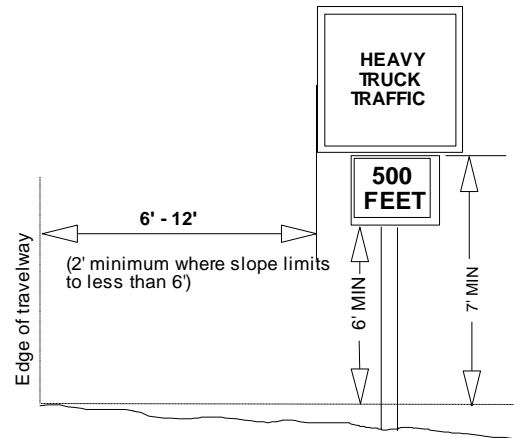


Figure 1: Sign Placement

#### **Dimensions**

#### **PLACEMENT DISTANCE**

Signs must be located 100-500 feet prior to the activity, (both ends if a through road) and maintained at that distance. This distance is based on speed. Refer to Figure 2 , Table II-1, MUTCD, a portion of which is reproduced here, to determine correct placement distance.

Posted or 85 percentile speed MPH	Deceleration to listed advisory speed MPH				
	10	20	30	40	50
20	NA				
25	100				
30	150	100			
35	200	175			
40	275	250	175		
45	350	300	250		
50	425	400	325	225	
55	500	475	400	300	
60	575	550	500	400	300
65	650	625	575	500	375

Figure 2: A Portion of MUTCD TABLE II-1

### **SIGN SUPPORTS**

**POSTS:** Signs are to be mounted on separate posts. Supplemental signs such as Speed Advisory plates are to be mounted on the same post as the primary sign. **Do not mount signs on trees or other signs.** Posts may be wood, metal, carsonite or similar material. Where sign supports cannot be sufficiently offset from the road edge, supports will meet breakaway standards. Single wood posts with less than 24 square inches do not require breakaway design.

**TEMPORARY/PORTABLE SUPPORTS:** Portable supports may be used for short-term, short-duration, and mobile conditions. MUTCD defines this time period as one work shift, 12 hours or less. All portable supports must meet MUTCD standards, including breakaway. These must be a minimum of 1 foot above the road surface or more if visibility requires it.

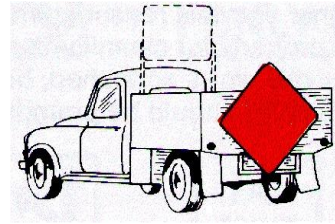
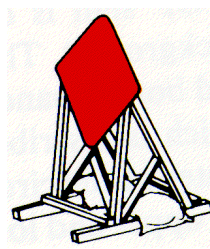
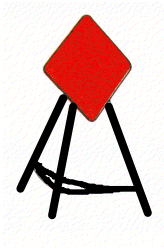
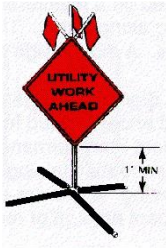


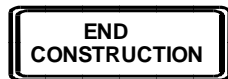
Figure 3: Examples of Temporary/Portable Supports

## SIGNS

The following signs meet the intent of the Safety standard. *This is not a complete listing of signs that may be needed.*



FG20-1-48\*  
FW22-3-30



FG20-2-48



FG20-3-42\*



FG20-3a-42



FW20-1-30\*



W21-3-30\*



FW21-4a-30



FW11-7-24

W22-1-36\*



FW8-6-24  
24\*



FW11-9a-24



W7-3a-24\*



W13-1-18\*\*

W20-7aP-

\* Specify Distance

Speed

\*\* Specify



BM-L-O



BM-R-O

Barricade Markers (See MUTCD for length and stripe size)

6. **Safety (Timber Hauling).** **Error! Reference source not found.** shall secure all products transported by truck with at least two chain or cable wrappers over the load, such wrappers being securely fastened to effectively contain every bolt or log in at least two places.
7. **Accident and Injury Notification.** **Error! Reference source not found.** shall notify U.S. Forest Service of any lost time personal injury accident or any accident or vandalism resulting in personal property damage over \$400 in value that occurs as a result of or is associated with **Error! Reference source not found.**'s Operations.

**Error! Reference source not found.** shall notify U.S. Forest Service within 8 hours of any personal injury accident. For vandalism and personal property accidents, **Error! Reference source not found.** shall notify U.S. Forest Service at the same time notification is given to the state and local law enforcement authorities.

**Error! Reference source not found.** shall take all reasonable measures after an accident or vandalism event to preserve the scene of the incident and provide information to facilitate a U.S. Forest Service investigation.

8. **Sanitation and Servicing.** **Error! Reference source not found.** shall take all reasonable precautions to prevent pollution of air, soil, and water by **Error! Reference source not found.**'s operations. Precautions shall include if facilities for employees are established on the Stewardship Project Area, they shall be operated in a sanitary manner. The parties shall agree to the cleanup and restoration of a polluted site. **Error! Reference source not found.** shall maintain all equipment operating on Stewardship Project Area in good repair and free of abnormal leakage of lubricants, fuel, coolants, and hydraulic fluid. **Error! Reference source not found.** shall not service tractors, trucks, or other equipment on National Forest lands where servicing is likely to result in pollution to soil or water. **Error! Reference source not found.** shall furnish oil-absorbing mats for use under all stationary equipment or equipment being serviced to prevent leaking or spilled petroleum-based products from contaminating soil and water resources. **Error! Reference source not found.** shall remove from National Forest lands all contaminated soil, vegetation, debris, vehicle oil filters (drained of free-flowing oil), batteries, oily rags, and waste oil resulting from use, servicing, repair, or abandonment of equipment.
9. **Prevention of Oil Spills.** If **Error! Reference source not found.** maintain(s) storage facilities for oil or oil products on the Stewardship Project Area, **Error! Reference source not found.** shall take appropriate preventive measures to ensure that any spill of such oil or oil products does not enter any stream or other waters of the United States or any of the individual States. If the total oil or oil products storage exceeds 1,320 gallons in containers of

55 gallons or greater, **Error! Reference source not found.** shall prepare a Spill Prevention Control and Countermeasures Plan. Such plan shall meet applicable EPA requirements (40 CFR 112), including certification by a registered professional engineer. **Error! Reference source not found.** shall notify the U.S. Forest Service and appropriate agencies of all reportable (40 CFR 110) spills of oil or oil products on or in the vicinity of the Stewardship Project Area that are caused by **Error! Reference source not found.**'s employees, agents, contractors or their employees or agents, directly or indirectly, as a result of **Error! Reference source not found.**'s operations. **Error! Reference source not found.** will take whatever initial action may be safely accomplished to contain all spills.

10. **Hazardous Substances.** **Error! Reference source not found.** shall notify the National Response Center and U.S. Forest Service principal contact of all releases of reportable quantities of hazardous substances on or in the vicinity of the Stewardship Project Area that are caused by **Error! Reference source not found.**'s employees, agents, contractors or their employees or agents, directly or indirectly, as a result of **Error! Reference source not found.**'s operations, in accordance with 40 CFR 302.
11. **Washing Equipment.** In order to prevent the spread of noxious weeds into the Stewardship Project Area, **Error! Reference source not found.** shall be required to clean all off-road logging and construction equipment **prior** to entry on to the Stewardship Project Area. This cleaning shall remove all soil, plant parts, seeds, vegetative matter, or other debris that could contain or hold seeds. Only logging and construction equipment so cleaned and inspected by the **Error! Reference source not found.** will be allowed to operate within the Stewardship Project Area. All subsequent move-ins of equipment to the Stewardship Project Area shall be treated in the same manner as the initial move in. "Off-road equipment" includes all logging and construction machinery, except for log trucks, chip vans, service vehicles, water trucks, pickup trucks, cars, and similar vehicles.

**Error! Reference source not found.** shall employ whatever cleaning methods are necessary to ensure that off-road equipment is free of noxious weeds. Equipment shall be considered free of soil, seed, and other such debris when a visual inspection does not disclose such material. Disassembly of equipment components or specialized inspection tools is not required.

As agreed upon, **Error! Reference source not found.** shall inspect equipment at cleaning location, and provide documentation of inspection to the U.S. Forest Service.

New infestations of noxious weeds, of concern to U.S. Forest Service and identified by either **Error! Reference source not found.** or U.S. Forest Service, on the Stewardship Project Area or on the haul route, shall be promptly reported to the other party. **Error! Reference source not found.** and U.S. Forest Service shall agree on treatment methods to reduce or stop the spread of noxious weeds when new infestations are found. A current list of noxious weeds of concern to U.S. Forest Service is available at each U.S. Forest Service office.

12. **Conduct of Logging.** Unless otherwise specifically provided herein, **Error! Reference source not found.** shall fell trees designated for cutting and shall remove the portions that

meet Utilization Standards, prior to acceptance of work for completion of logging and stewardship projects. U.S. Forest Service may make exceptions for occasional trees inadvertently not cut or trees or pieces not removed for good reason, including possible damage to forest resources or gross economic impracticability at the time of removal of other timber.

13. **Felling and Bucking.** Felling shall be done to minimize breakage of included timber and damage to residual timber. Unless agreed otherwise, felling shall be done by saws or shears. Bucking shall be done to permit removal of all minimum pieces. **Error! Reference source not found.** may buck out cull material when necessary to produce pieces meeting utilization standards. Such bucked out material shall contain a minimum amount of sound wood, not in excess of the net scale in percentage of gross scale, or based on the merchantability factor. If necessary to assess extent of defect, **Error! Reference source not found.** shall make sample saw cuts or wedges.
14. **Felling in Clearings.** Insofar as ground conditions, tree lean, and shape of clearings permit, trees shall be felled so that their tops do not extend outside clearcutting units, construction clearings, and areas of regeneration cutting.
15. **Stump Heights.** Stumps shall not exceed, on the side adjacent to the highest ground, the maximum heights set forth in Appendix E except that occasional stumps of greater heights are acceptable when **Error! Reference source not found.** determine(s) that they are necessary for safe and efficient conduct of logging. Unless otherwise agreed, **Error! Reference source not found.** shall re-cut high stumps so they will not exceed heights specified in F-14 and shall dispose of severed portions in the same manner as other logging debris. The stump heights shown in Appendix F were selected with the objective of maximum reasonable utilization of the timber, unless the Map shows special areas where stump heights are lower for aesthetic, land treatment, or silvicultural reasons.
16. **Bucking Lengths.** Trees shall be bucked in various lengths to obtain the greatest utilization of material meeting utilization standards.
17. **Limbing.** **Error! Reference source not found.** shall cut exposed limbs from products prior to skidding, as necessary to minimize damage to the residual stand during skidding. **Error! Reference source not found.** may leave uncut those limbs that cannot be cut with reasonable safety.
18. **Skidding and Yarding.** Methods of skidding or yarding specified for particular areas, if any, are indicated on the Map. Outside clearcutting units and construction clearings, insofar as ground conditions permit, products shall not be skidded against reserve trees or groups of reproduction and tractors shall be equipped with a winch to facilitate skidding.
19. **Rigging.** Insofar as practicable, needed rigging shall be slung on stumps or trees designated for cutting.
20. **Landings and Skid Trails.** Location of all landings, tractor roads, and skid trails shall be

agreed upon prior to their construction. The cleared or excavated size of landings shall not exceed that needed for efficient skidding and loading operations.

21. **Arches and Dozer Blades.** Skidding tractors equipped with pull-type arches or dozer blades wider than tractor width or C-frame width, whichever is greater, shall not be used in residual timber outside clearcutting units and other authorized clearings, except on constructed tractor roads or landings, unless there is written agreement that residual timber will not be damaged materially by such use.
22. **Protection of Streamcourses.** **Error! Reference source not found.**'s Operations shall be conducted to prevent debris from entering streamcourses, except as may be authorized under paragraph (d). In event **Error! Reference source not found.** cause(s) debris to enter streamcourses in amounts that may adversely affect the natural flow of the stream, water quality, or fishery resource, **Error! Reference source not found.** shall remove such debris as soon as practicable, but not to exceed 2 days, and in an agreed manner that will cause the least disturbance to streamcourses.
- a) Culverts or bridges shall be required on Temporary Roads at all points where it is necessary to cross Streamcourses. Such facilities shall be of sufficient size and design and installed in a manner to provide unobstructed flow of water and to minimize damage to streamcourses. Trees or products shall not be otherwise hauled or yarded across streamcourses unless fully suspended.
  - b) Wheeled or track-laying equipment shall not be operated in streamcourses, except at crossings agreed to by **Error! Reference source not found.** and the U.S. Forest Service or as essential to construction or removal of culverts and bridges.
  - c) Flow in streamcourses may be temporarily diverted only if such diversion is necessary for **Error! Reference source not found.**'s planned construction and U.S. Forest Service gives written authorization. Such flow shall be restored to the natural course as soon as practicable and, in any event, prior to a major storm runoff period or runoff season.
23. **Erosion Prevention and Control.** **Error! Reference source not found.**'s operations shall be conducted reasonably to minimize soil erosion. Equipment shall not be operated when ground conditions are such that excessive damage will result. **Error! Reference source not found.** shall adjust the kinds and intensity of erosion control work done, to ground conditions and weather conditions and the need for controlling runoff. Erosion control work shall be kept current immediately preceding expected seasonal periods of precipitation or runoff.

Prior to periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, **Error! Reference source not found.** shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

Unless otherwise agreed in writing, **Error! Reference source not found.** shall complete erosion prevention and control work, including streamcourse protection, within 15 calendar days after completion of skidding and/or yarding operations for each landing.

Designation of on the ground work shall be done as promptly as feasible unless it is agreed that the location of such work can be established without marking on the ground.

During periods of accelerated water runoff, especially during the spring runoff and periods of heavy rainfall, **Error! Reference source not found.** shall inspect and open culverts and drainage structures, construct special cross ditches for road runoff, and take other reasonable measures needed to prevent soil erosion and siltation of streams.

When operations are active, erosion control work will be kept current and will be completed as soon as practicable.

24. **Protection of Improvements.** So far as practicable, **Error! Reference source not found.** shall protect specified roads and other improvements (such as roads, trails, telephone lines, ditches, and fences):

- a) Existing in the operating area,
- b) Determined to have a continuing need or use, and
- c) Designated on the Map.

**Error! Reference source not found.** shall keep roads and trails needed for fire protection or other purposes and designated on the Map reasonably free of equipment and products, slash, and debris resulting from **Error! Reference source not found.**'s operations. **Error! Reference source not found.** shall make timely restoration of any such improvements damaged by **Error! Reference source not found.**'s operations and, when necessary because of such operations, shall move such improvements.

25. **Meadow Protection.** Reasonable care shall be taken to avoid damage to the cover, soil, and water in meadows shown on the Map. Vehicular or skidding equipment shall not be used on meadows, except where roads, landings, and tractor roads are approved. Unless otherwise agreed, trees felled into meadows shall be removed by endlining. Resulting logging slash shall be removed where necessary to protect cover, soil, and water.

26. **Wetlands Protection.** Wetlands requiring protection under Executive Order 11990 are shown on the Map. Vehicular or skidding equipment shall not be used in such wetlands, except where roads, landings, and tractor roads are approved.

27. **Temporary Roads.** As necessary to attain stabilization of roadbed and fill slopes of temporary roads, **Error! Reference source not found.** shall employ such measures as outsloping, drainage dips, and water-spreading ditches. After a temporary road has served **Error! Reference source not found.**'s purpose, **Error! Reference source not found.** shall give notice to the U.S. Forest Service and shall remove bridges and culverts, eliminate ditches, outslope roadbed, remove ruts and berms, effectively block the road to normal vehicular traffic where feasible under existing terrain conditions, and build cross ditches and water bars, as staked or otherwise agreed to. When bridges and culverts are removed, associated fills shall also be removed to the extent necessary to permit normal maximum flow of water.



28. **Temporary Roads to Remain Open.** All bridges and culverts shall remain in place and ditches shall not be eliminated on Temporary Roads, shown as “Remained Open on the Map. All drainage structures shall be left in functional condition.
29. **Landings.** After landings have served **Error! Reference source not found.**’s purpose, **Error! Reference source not found.** shall ditch and slope them to permit water to drain or spread. Unless agreed to otherwise, cut and fill banks around landings shall be sloped to remove overhangs and otherwise minimize erosion.
30. **Skid Trails and Fire Lines.** **Error! Reference source not found.** shall construct cross ditches and water-spreading ditches on tractor roads and skid trails, where needed to prevent erosion. By agreement, **Error! Reference source not found.** may use other comparable erosion control measures, such as backblading skid trails, in lieu of cross ditching.
31. **Current Operating Areas.** Where logging, road construction, or other stewardship project work is in progress but not completed, unless agreed to otherwise, **Error! Reference source not found.** shall, before operations cease annually, remove all temporary log culverts and construct temporary cross drains, drainage ditches, dips, berms, culverts, or other facilities needed to control erosion. Such protection shall be provided, for all disturbed, unprotected ground that is not to be disturbed further prior to end of operations each year, including roads and associated fills, tractor roads, skid trails, and fire lines. When weather permits operations, **Error! Reference source not found.** shall keep such work on any additional disturbed areas as up to date as practicable.
32. **Erosion Control Structure Maintenance.** During the period of this SPA, **Error! Reference source not found.** shall provide maintenance of soil erosion control structures constructed by **Error! Reference source not found.** until they become stabilized, but not for more than one year after their construction.
33. **Slash Disposal.** **Error! Reference source not found.**’s timing of product removal and preparatory work shall not unnecessarily delay slash disposal. Specific slash disposal measures to be employed by **Error! Reference source not found.** are stated in Appendix E.
34. **Fire Precautions and Control**
- a) **Plans.** Prior to initiating **Error! Reference source not found.**’s operations during Fire Precautionary Period, **Error! Reference source not found.** shall file with U.S. Forest Service a Fire Prevention and Control Plan providing for the prevention and control of fires on the Stewardship Project Area and other areas of **Error! Reference source not found.**’s Operations. Such plan shall include a detailed list of personnel and equipment at **Error! Reference source not found.** disposal for implementing the plan. This requirement may be met by preparing a single plan for more than one SPA.
  - b) **Fire Precautions.** Specific fire precautionary measures listed in this Appendix shall be applicable during **Error! Reference source not found.**’s Operations in “Fire Precautionary Period” described. The dates of Fire Precautionary Period may be changed by agreement, if justified by unusual weather or other conditions. Required tools and

equipment shall be kept in serviceable condition and immediately available for fire fighting at all times during **Error! Reference source not found.**'s operations in Fire Precautionary Period.

- c) **Substitute Precautions.** The U.S. Forest Service may authorize substitute measures or equipment, or waive specific requirements by written notice, if substitute measures or equipment will afford equal protection or some of the required measures and equipment are unnecessary.
- d) **Emergency Precautions.** The U.S. Forest Service may require the necessary shutting down of equipment on portions of **Error! Reference source not found.**'s Operations, as specified by the emergency fire precautions schedule. Under such conditions, after **Error! Reference source not found.** cease(s) active operations, **Error! Reference source not found.** shall release for hire by U.S. Forest Service, if needed, **Error! Reference source not found.**'s shutdown equipment for fire standby on the Stewardship Project Area or other areas of **Error! Reference source not found.**'s Operations and personnel for fire standby or fire patrol, when such personnel and equipment are not needed by **Error! Reference source not found.** for other fire fighting or protection from fire. Equipment shall be paid for at fire fighting equipment rates common in the area or at prior agreed rates and, if **Error! Reference source not found.** request(s), shall be operated only by personnel approved by the **Error! Reference source not found.** Personnel so hired shall be subject to direction and control by U.S. Forest Service and shall be paid by U.S. Forest Service at fire fighting rates common in the area or at prior agreed rates.
- e) **Fire Precautionary Period and Fire Precautions.** Specific fire precautionary measures are set forth below. Upon request of U.S. Forest Service, **Error! Reference source not found.** shall permit and provide an individual to assist in periodic testing and inspection of required fire equipment. **Error! Reference source not found.** shall promptly remedy deficiencies found through such inspecting and testing.
  - 1. The following requirements shall apply during the period **January 01 through December 31** and during other such periods as specified by U.S. Forest Service.
  - 2. When the Forest Service advises the Partner that local fire weather conditions are becoming critical, the Partner shall keep with gasoline chainsaws at all times a fire rake and chemical fire extinguisher and take precautionary measures requested by the Forest Service. The Partner shall act as custodian of fire fighting equipment furnished by the Forest Service. Equipment shall be stored in sealed boxes provided for this purpose and shall be transported to locations in immediate vicinity of current logging and milling operations on Timber Removal Area. The Forest Service shall be reimbursed for any damage to or loss of fire fighting equipment furnished by the Forest Service, which occurs on Negligently-Caused Fires or as a result of using equipment for unauthorized purposes.

35. **Fire Control.** **Error! Reference source not found.** shall, both independently and in cooperation with U.S. Forest Service, take all reasonable and practicable action to prevent and suppress fires resulting from **Error! Reference source not found.**'s Operations and to suppress any forest fire on Stewardship Project Area. **Error! Reference source not found.**'s independent initial fire suppression action on such fires shall be immediate and shall include the use of all necessary personnel and equipment at **Error! Reference source not found.**'s disposal on Stewardship Project Area or within the distance of Stewardship Project Area: **50 miles.**

- a) **The Partner's Reinforcement Obligations.** Whenever an Operations Fire or Negligent Fire, whether on or off Stewardship Project Area or any other forest fire on Stewardship Project Area, has not been suppressed by initial action and appreciable reinforcement strength is required, U.S. Forest Service may require further actions by **Error! Reference source not found.** until such fire is controlled and mopped up to a point of safety. Such actions may include any or all of the following as necessary to fight such fire:
- b) **Suspend Operations.** To suspend any or all of **Error! Reference source not found.**'s Operations.
- c) **Personnel.** To release for employment by U.S. Forest Service any or all of **Error! Reference source not found.**'s personnel engaged in **Error! Reference source not found.**'s Operations or timber processing within the distance of Stewardship Project Area: **25 miles.** Any organized crew so hired shall include **Error! Reference source not found.**'s supervisor, if any. Personnel so employed shall be paid at U.S. Forest Service standard emergency fire fighting rates.
- d) **Equipment.** To make available for U.S. Forest Service rental at fire fighting equipment rates common in the area or at prior agreed rates any or all of **Error! Reference source not found.**'s equipment suitable for fire fighting and currently engaged in **Error! Reference source not found.**'s Operations within the distance of Stewardship Project Area: **25 miles.** Equipment shall be operated only by personnel approved by **Error! Reference source not found.**, if so requested by **Error! Reference source not found.**

36. **Temporary Roads and Skid Trails.** **Error! Reference source not found.** shall locate Temporary Roads and Skid Trails on locations approved by the U.S. Forest Service. Such location shall include the marking of road centerline or grade-line and the setting of such construction stakes as are necessary to provide a suitable basis for economical construction and the protection of National Forest lands.

Temporary road surface width shall be limited to truck bunk width plus four (4) feet, except for needed turnouts which shall not exceed two (2) times the bunk width plus four (4) feet. If shovels or cranes with revolving carriage are used to skid or load, temporary road surface width equal to track width plus tail swing shall be permitted.

As necessary to attain stabilization of roadbed and fill slopes of Temporary Roads, **Error!**

**Reference source not found.** shall employ such measures as outsloping, drainage dips, and water-spreading ditches.